



Paying for Waste Disposal



What Are the Choices?

Tax Base

General Fund

Flat Fee

User Fee

(Pay-As-You-Throw)

Challenges in MSW Management

- More garbage to collect and dispose
- Higher costs of collection services
- Limited municipal budgets
- Public-sector pressure to more cost-efficient



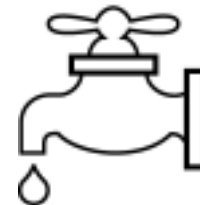
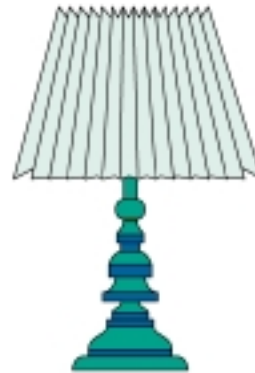
"3E" Benefits of Pay-As-You-Throw



- ***Environmental Sustainability:*** Effectively promotes waste reduction
- ***Economic Stability:*** Stable revenue covers cost of services
- ***Equity:*** Economically fair delivery of services

How PAYT Programs Work

- Pay for MSW service based on garbage thrown out
- Pay for waste like a utility
- Residents only pay for what they use



Types of PAYT Programs



- **Cans:** Residents pay higher fees for larger containers

- **Bags:** Residents pay a fee for garbage bags



- **Stickers:** Residents pay for stickers affixed to bags/containers



Environmental Research Results

- **Duke University National Study**
 - 14 to 27% average waste reduction
 - 32 to 59% increase in recycling
 - 19% found slight increase in illegal dumping

Examples of U.S. City Savings

- **Wilmington, NC**— \$400,000 per year
(Population: 75,000)
- **Littleton, NH**— \$40,000 in extra funds with PAYT
(Population: 5,800)
- **Gainesville, FL**— \$186,200 savings
(Population: 96,000)
- **San Jose, CA**— reduced cost by \$4 million annually
(Population: 850,000)

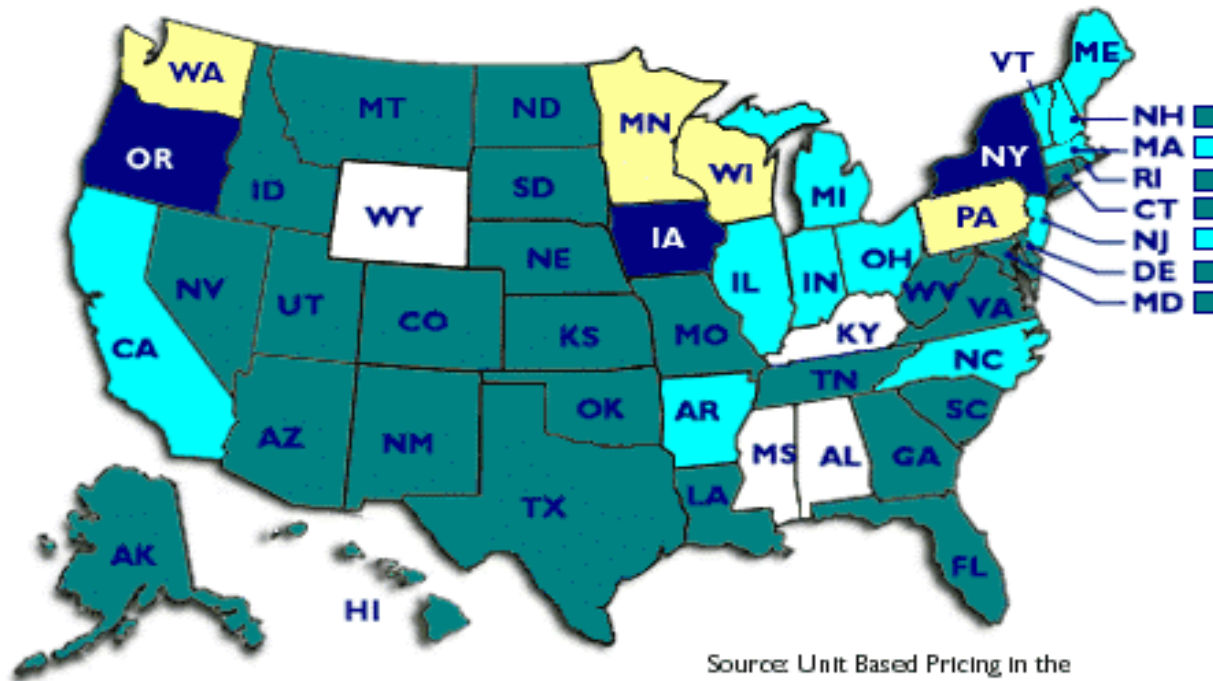


PAYT Growing in the U.S.



- More than **5,000** communities in U.S. practice PAYT
- Cities large and small, rural and urban
- More than **60** cities with populations above **100,000** practice PAYT

Map of PAYT Communities



Source: Unit Based Pricing in the United States: A Tally of Communities, M.L. Miranda, Duke University, 1999.

Number of Communities with Pay-As-You-Throw



0



1-25



26-100



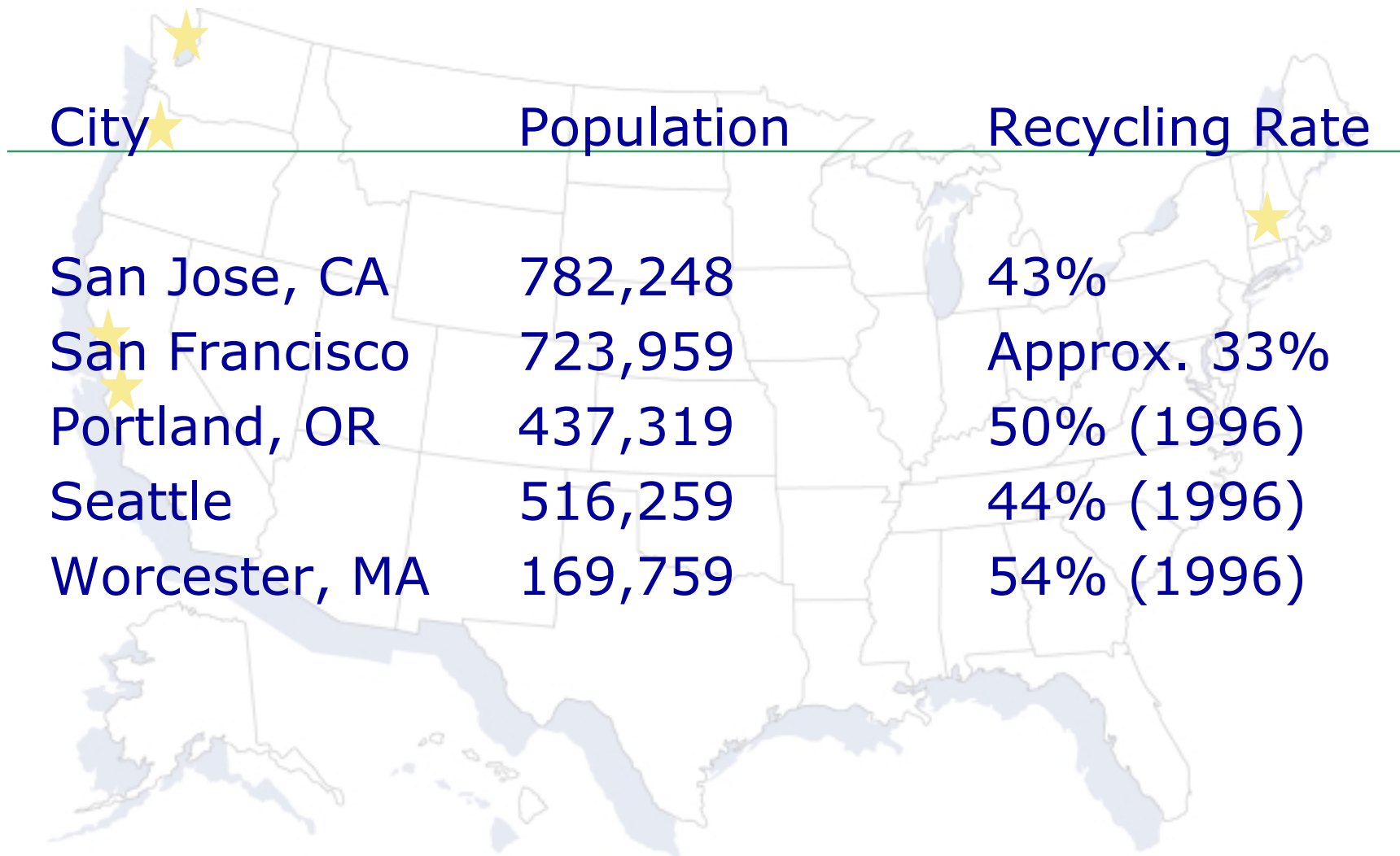
101-200



200+



Large Cities and PAYT



City★	Population	Recycling Rate
San Jose, CA	782,248	43%
San Francisco	723,959	Approx. 33%
Portland, OR	437,319	50% (1996)
Seattle	516,259	44% (1996)
Worcester, MA	169,759	54% (1996)

What People Say about PAYT

Approval from elected officials to environmental groups and residents

- PAYT offers “a direct economic payback to the people”—San Jose elected official
- High recycling rates in cities correlates with PAYT
- Surveys indicate residential approval
- Positive changes in consumer purchasing behavior



Lessons Learned from PAYT

- Economic incentives encourage behavioral changes
- Treating MSW services as a utility — you pay for what you use
- **Win-win:** high recycling rate and economic stability



EPA Tools/Technical Assistance

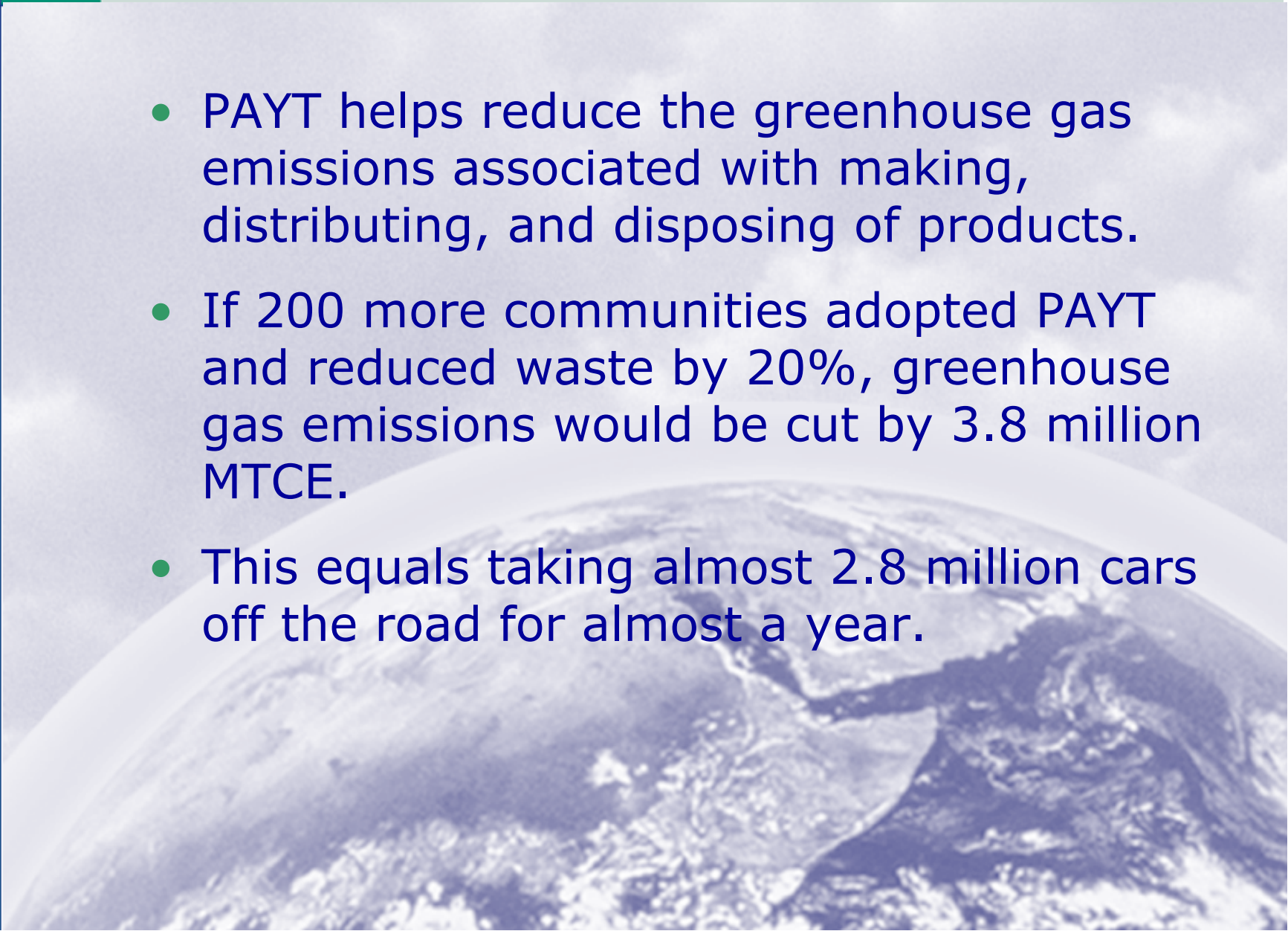
What is EPA doing to support PAYT?

- Tool kit, PAYT Video, Fact sheets, Testimonials, Guidebook
- Technical assistance workshops in cities across the U.S.
- Web site: www.epa.gov/payt





Climate Change

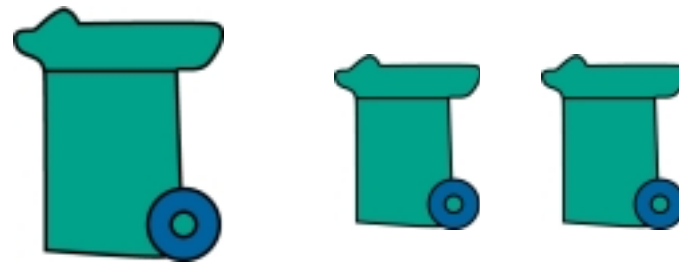
- PAYT helps reduce the greenhouse gas emissions associated with making, distributing, and disposing of products.
 - If 200 more communities adopted PAYT and reduced waste by 20%, greenhouse gas emissions would be cut by 3.8 million MTCE.
 - This equals taking almost 2.8 million cars off the road for almost a year.
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Pricing Systems

- Proportional



- Variable



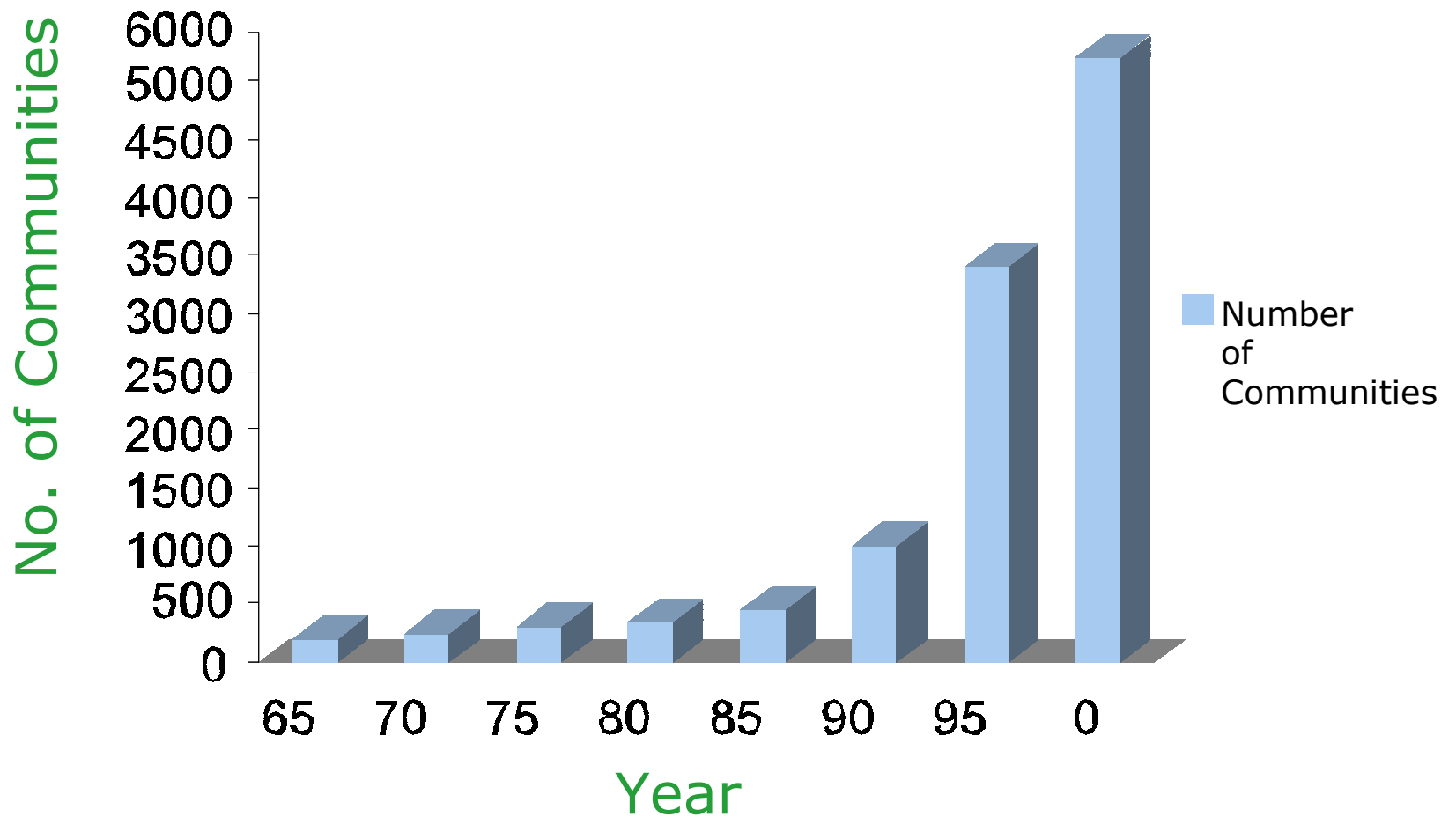
- Two-tiered/
Multi-tiered

Complementary Programs

- Curbside Recycling
- Yard Trimmings and Composting
- Bulky Items and White Goods



Growth in PAYT Programs





San Jose, California

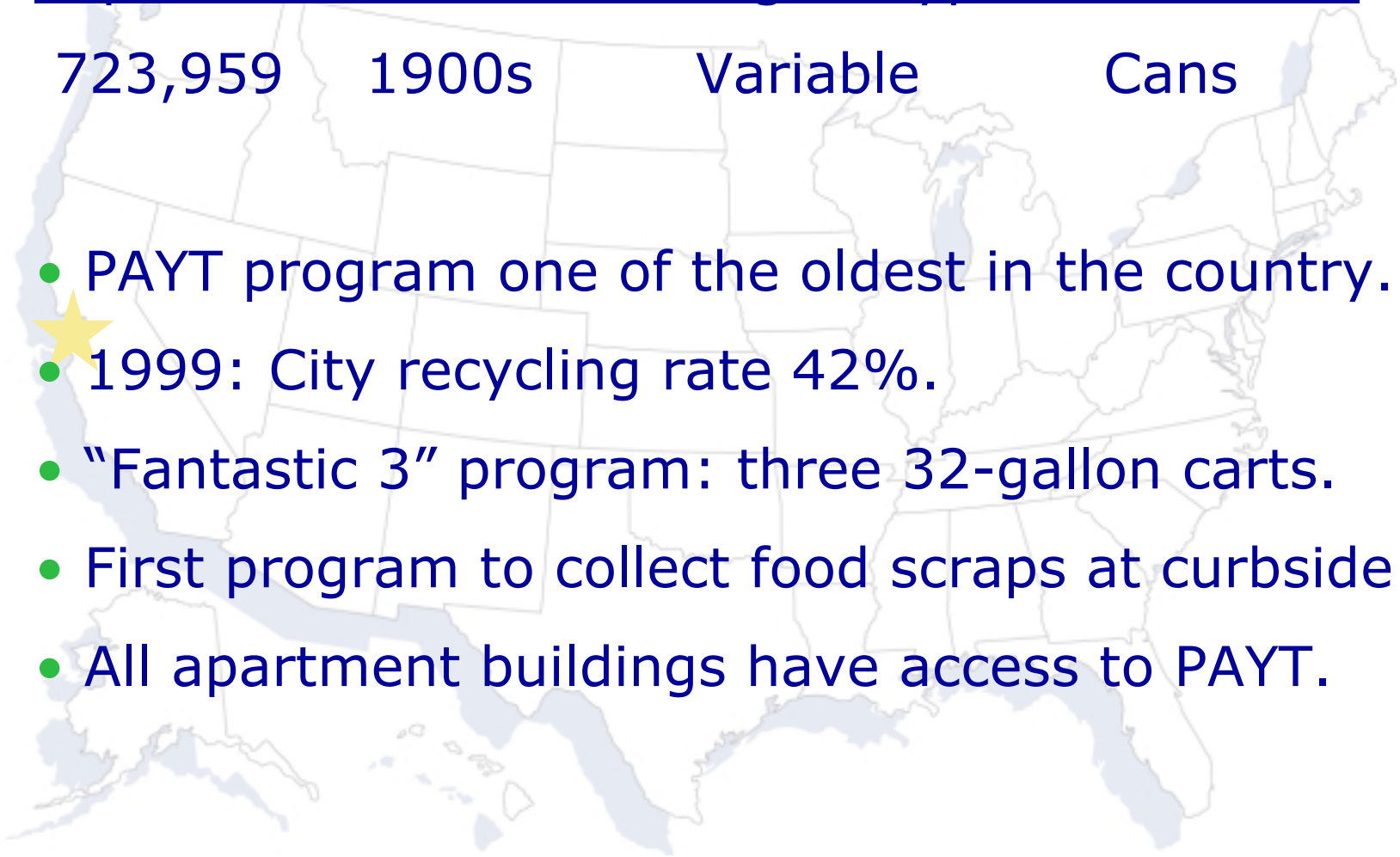
<u>Population</u>	<u>Start Date</u>	<u>Prgm. Type</u>	<u>Container</u>
850,000	July 1993	Four-Sort	Cans

- Before PAYT: Unlimited collection for \$12.50/month.
- ★ Before PAYT: Three 32-gallon garbage cans/week.
- City reduced costs by over \$4 million/year.
- 87% of residents use the 32-gallon size container.
- Recyclables/yard trimmings double pre-PAYT level.
- Residents happy with program
(80% approval in 1993, 90% in 1996).



San Francisco, California

<u>Population</u>	<u>Start Date</u>	<u>Prgm. Type</u>	<u>Container</u>
723,959	1900s	Variable	Cans

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- PAYT program one of the oldest in the country.
 - ★ 1999: City recycling rate 42%.
 - “Fantastic 3” program: three 32-gallon carts.
 - First program to collect food scraps at curbside.
 - All apartment buildings have access to PAYT.



Seattle, Washington

<u>Population</u>	<u>Start Date</u>	<u>Prgm. Type</u>	<u>Container</u>
516,259	1981	Variable	Cans

- City offers 10, 20, 30, 60, or 90-gallon cans.
- City uses totes, semi-automated collection for containers over 30 gallons.
- 25% of resident use 20-gallon cans.
- Water/trash bills issued jointly:
City pays for trash, shuts off water.



Austin, Texas



<u>Population</u>	<u>Start Date</u>	<u>Prgm. Type</u>	<u>Container</u>
465,622	1991	Variable	Cans

- 2000: Recycling rate 28.5%.
- 1991 (program began): Recycling rate 9.8%.
- Switch to fully automated, one-person crews.
- Residents can use 30-, 60-, or 90-gallon carts.
- Excess garbage placed in bag with \$2 sticker.
- Bags without stickers charged \$4/untagged bag.



Vancouver, Washington



<u>Population</u>	<u>Start Date</u>	<u>Prgm. Type</u>	<u>Container</u>
69,000	1990	Variable	Cans

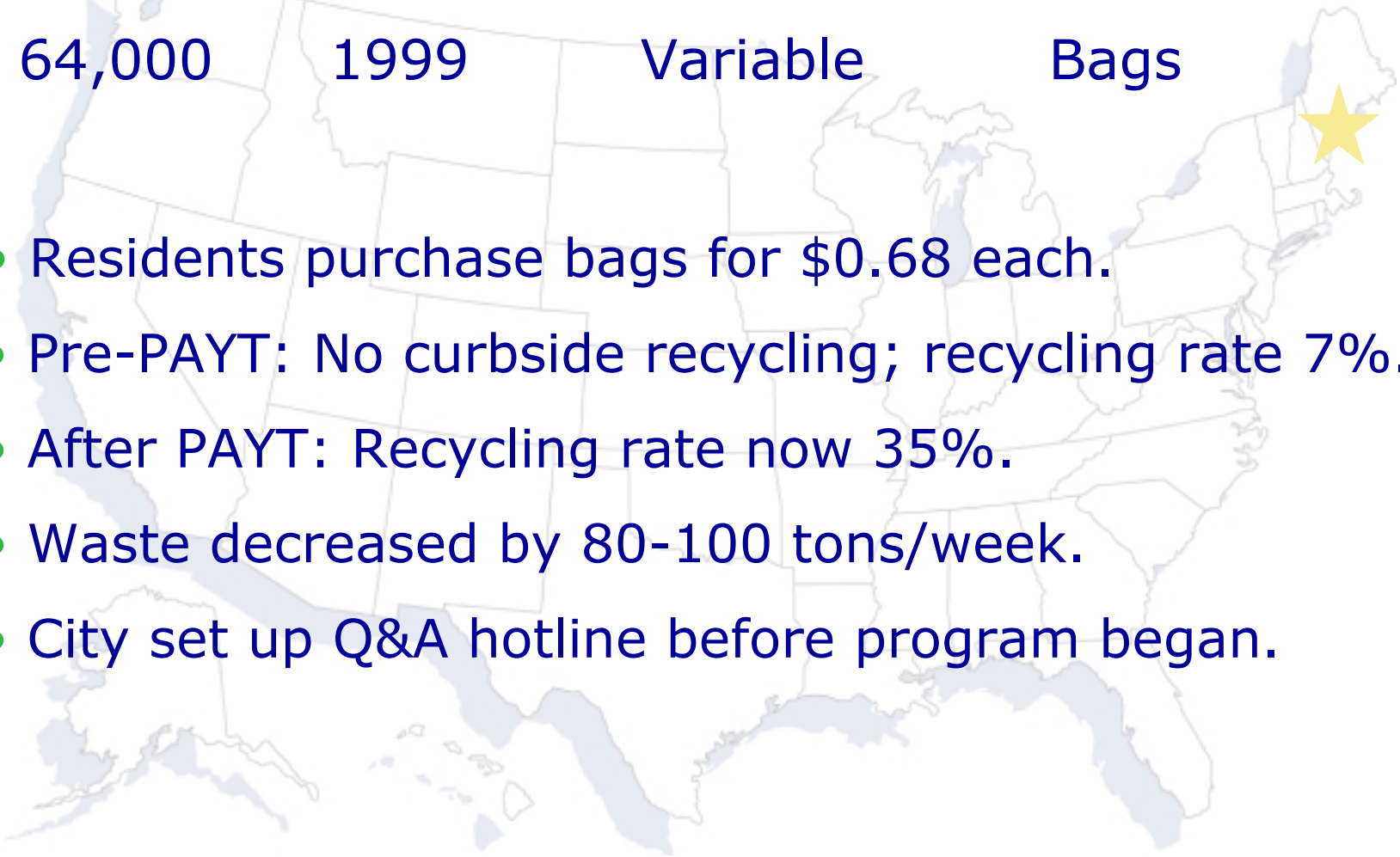
- Second-can rate 84% greater than first can.
- 500 residents switched to the mini-can.
- Weekly recycling costs \$3.10/month.
- Set out 96 gallons of yard debris: \$5.55/month.
- City exceeded 50% recycling goal by 1995.



Portland, Maine

<u>Population</u>	<u>Start Date</u>	<u>Prgm. Type</u>	<u>Container</u>
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64,000	1999	Variable	Bags
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- Residents purchase bags for \$0.68 each.
 - Pre-PAYT: No curbside recycling; recycling rate 7%.
 - After PAYT: Recycling rate now 35%.
 - Waste decreased by 80-100 tons/week.
 - City set up Q&A hotline before program began.



Wilmington, North Carolina

<u>Population</u>	<u>Start Date</u>	<u>Prgm. Type</u>	<u>Container</u>
64,513	1992	Two-tiered	Cans

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- Combat illegal dumping: City used newspapers, radio, and TV.
 - Citizen focus groups gathered support.
 - 40-, 90-gallon roll-out carts collect waste weekly.
 - Biweekly pickup or stickers for overflow available.
 - Increase: 10% recyclables, 40% yard debris.